

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **08-318141**

(43)Date of publication of application : **03.12.1996**

(51)Int.Cl.

B01D 71/02

B01D 61/36

(21)Application number : **07-126522**

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(22)Date of filing : **25.05.1995**

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(54) LIQUID MIXTURE SEPARATION MEMBRANE

(57)Abstract:

PURPOSE: To prepare a membrane used for pervaporation, with which water can very efficiently be separated from a liquid mixture, and also, which has excellent permeation stability.

CONSTITUTION: This membrane is formed by depositing seed crystals on a porous supporting body and, thereafter, depositing an A-type zeolite membrane on the resultant supporting body and shows very high selective water permeability due to the ability of the zeolite as a molecular sieve. Thus, the objective practical liquid mixture separation membrane which shows high separation efficiency, excellent permeation stability, good chemical resistance and also, good handleability in the separation of a liquid mixture by a pervaporation process can be provided by only one film forming operation. With the membrane, the separation of a water-ethanol mixture or the like, which can hardly be performed with any conventional membrane can stably and efficiently be performed, and also, this membrane is effectively used in a vapor permeation process as well as a pervaporation process.

LEGAL STATUS

[Date of request for examination] 18.02.2002

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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